Introduction

It is a great honor for me to introduce the 2002 Congenital Surgery issue of *Operative Techniques in Thoracic and Cardiovascular Surgery*. I feel privileged to have been invited to take the position of Associate Editor for Congenital Surgery for this comparative atlas series. Dr. James Cox has played an incredibly important role in establishing the *Operative Techniques* series as one of the three publication arms of the American Association for Thoracic Surgery (AATS). I look forward to working closely with Dr. Cox as well as Editor-in-Cheif Dr. Andrew Wechsler, Managing Editor Pamela Fried, and the editorial staff in the Saunders division of Elsevier Science.

The fact that Elsevier Science is now the unifying parent organization to both W.S. Saunders, which has published *Operative Techniques in Thoracic and Cardiovascular Surgery* and *Seminars in Thoracic and Cardiovascular Surgery*, and to Mosby Company, which publish the *Journal of Thoracic and Cardiovascular Surgery*, should bring important benefits to AATS members and other readers of these journals in the future. However, members and readers will understand that these journals are currently passing through a transition period, with the editorial office having recently been centralized under Pamela Fried's capable direction in Philadelphia.

Going forward, we anticipate that we will have an annual Congenital Surgery issue of *Operative Techniques*. Each year we hope to focus on the technical issues of importance in a related series of procedures. This year, for example, the theme is the left ventricular outflow tract.

The left ventricular outflow tract is one of the most complex areas of the heart. Procedures in this area put at risk the most important structures of the heart: the mitral valve, the aortic valve, the coronary arteries, the conduction system, and the left ventricle itself. There is little room for error, and tolerances are remarkably small, particularly when dealing with neonates, infants, and small children.

The most common general problem affecting the left ventricular outflow tract is obstruction. Obstruction can occur below the aortic valve in the subaortic area, at the valve level itself related either to the valve leaflets or the size of the valve annulus, or in the supravalvar area. One of the simplest forms of obstruction is the subaortic membrane. In the first contribution in this issue, Drs. Bove and Ohye from the University of Michigan, Ann Arbor, have illustrated and described the steps involved in resection of a subaortic membrane. When obstruction is caused by annular hypoplasia, the aortic annulus can be enlarged using a number of different procedures.

Dr. Hanley and Dr. Eghtesady from Stanford describe the Manougian method of posterior enlargement of the annulus with an incision extending into the anterior leaflet of the mitral valve across the posterior aspect of the aortic annulus. If the aortic annulus is of adequate size and obstruction is secondary to a subaortic tunnel, then enlargement of the subaortic region can be performed by an incision in the ventricular septum leading up to the level of the aortic annulus. A patch is placed on the right ventricular aspect of the septum, which enlarges the subaortic area by the width of the patch as well as the depth of the septum. This is the modified Konno procedure, which is presented by the Associate Editor.

When both the subaortic area and the aortic annulus require enlargement, the classic Konno procedure is often selected. This procedure originated at Tokyo Women's Medical College and has been beautifully presented by the new chief of the department in Tokyo, Dr. Hiromi Kurosawa.

An alternative to the classic Konno procedure is the Ross/Konno procedure, which combines patch enlargement of the subaortic tunnel with a Ross procedure, incorporating pulmonary autograft valve replacement of the aortic valve. Dr. Spray from Children's Hospital of Philadelphia has laid out the steps of the complex Ross/Konno procedure.

When obstruction occurs above the level of the aortic annulus, usually at the sinotubular junction, the result is supravalvar aortic stenosis. A number of techniques have been developed for management of this condition and are presented here by Dr. Nunn from Sydney, Australia.

Finally, the difficult problem of how to cope with re-replacement of the homograft aortic root is presented by Drs. Clarke and Mitchell from Denver. In the past, the aortic homograft was sometimes selected for the so-called extended aortic root replacement, which incorporated elements of the Konno procedure together with homograft root replacement of the aortic valve and aortic root. Because of early failure of aortic homografts in young children in this setting, this procedure is rarely undertaken today. However, children who have undergone this procedure in the past now represent a difficult operative challenge.

We hope that readers find this congenital surgery issue to be of interest and helpful in their practice of congenital cardiac surgery. I welcome feedback and suggestions for future editions and look forward to serving the AATS in my new role as Associate Editor for *Operative Techniques in Thoracic and Cardiovascular Surgery*.

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